

Compound Interest

Calculate the Future Value of an investment of \$3500 at 6 %/a compounded monthly after 4 years.

Dec 6-11:44 AM

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$$A = P(1 + i)^n$$

$$P = \$3500$$

$$i = \frac{6\%}{12} = 0.06/12 = 0.005$$

$$n = 4 \times 12 = 48$$

$$A = 3500(1.005)^{48}$$

$$= 3500(1.27)$$

$$= 4446.71$$

$$I = Prt$$

$$= 3500(0.06)(4)$$

$$I = 840$$

$$3500 + 840 = 4340$$

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The Cost of Renting a Home p 454

Fixed Expenses p455

- price doesn't change through time ie per month

ie rent, some utilities, home phone
Internet, satellite

Variable Expense

- price fluctuates each month

ie water/sewage, heating
electricity, long distance

Equal Billing - pay same amount
each month even
though usage is variable
- gas, hydro

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lease- signed contract to rent

usually 1 year

pay monthly

Ex 2 p456

An Apartment With Fixed and Variable Expenses

Mei is in her third year of college and is a **tenant** in the basement apartment of a house. Her rent is \$525 per month plus utilities. Every two months, she receives an electricity bill that averages \$130. Every four months, she receives a water bill for approximately \$220. Every month, she receives a cable television bill, an expense not considered to be a utility, for \$53. She also purchases a \$10 cellular telephone time card each month.

- Calculate Mei's total average expenses per month.
- Estimate her total expenses from the beginning of September to the end of April.

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525 rent

65 electricity ($130/2$)

55 Water ($220/4$)

53 cable

10 pay as you go

708

$708 \times 8 = 5664$ - living expenses

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Deposit

p. 457

Typical

- First & Last month's rent due up front

i.e. move in Sept 1ST

September 2 Aug 13
due Sept 1

May 19-1:26 PM

Key Concepts

- Some rental agreements include the cost of utilities.
- A tenant may be required to sign a lease.
- New renters may be required to pay deposits for rent and for utilities prior to moving in.

p. 458 q. 1, 2, 5,7 & 8

9 (graphing calc) &10

May 20-12:31 PM

May 2-7:48 AM